

Will the proposed CDFs be able to withstand a flood?

EPA has established performance standards for the design of CDFs in Portland Harbor that address flood hazards. The CDFs must be designed to withstand a 100-year flood.

Will the proposed CDFs be able to withstand an earthquake?

EPA has established performance standards for the design of Portland Harbor CDFs. The design for the Terminal 4 CDF is 60% complete, and analysis of the design indicates the CDF could withstand a magnitude 9.0 Cascadia Subduction Zone earthquake and a relatively close magnitude 6.2 earthquake.

Will the CDFs cause air pollution?

Dust from placement of contaminated sediment is not expected due to the wet conditions that will be present during CDF filling. Once filled, a surface cover would be placed over the confined contaminated sediment in the CDF to prevent exposure including by dust. The most common contaminants in Portland Harbor sediment do not evaporate readily and generally do not include volatile compounds such as gasoline, benzene, or chlorinated solvents. Dredging and sediment handling operations at other Superfund sites in the Pacific Northwest with similar contaminants have found no significant impacts to air quality.

What locations are being considered for CDFs in Portland Harbor?

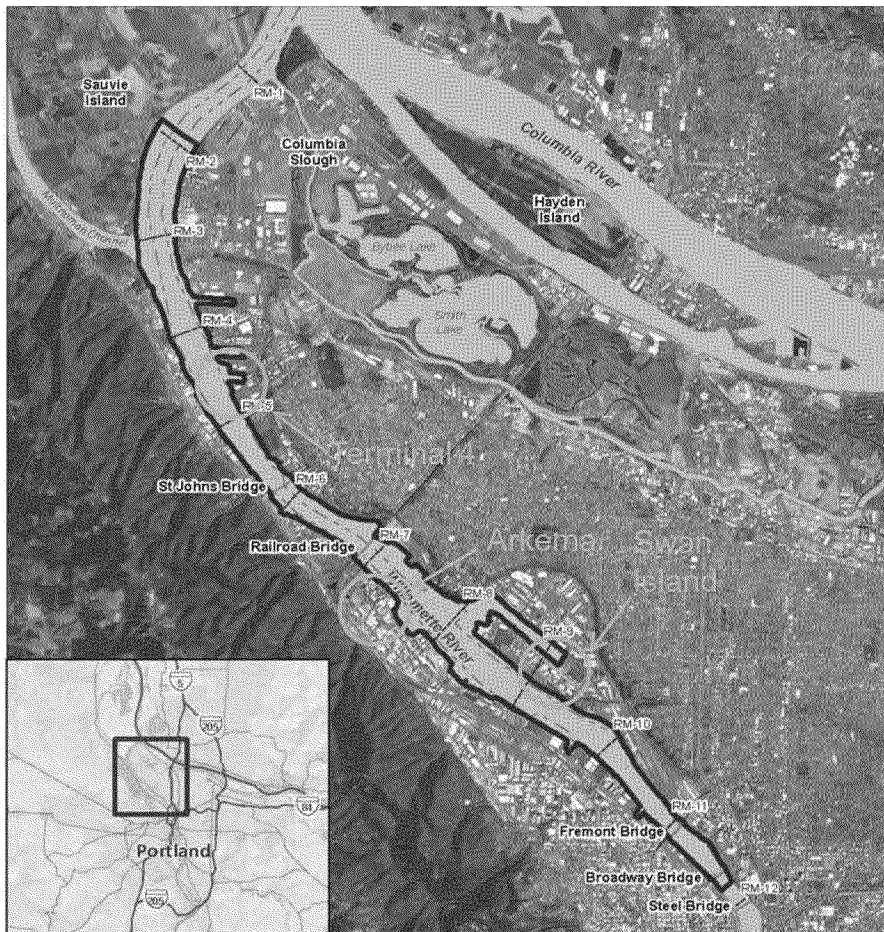
Three CDFs are currently being considered for Portland Harbor: Port of Portland Terminal 4 Slip 1, the upper end of Swan Island Lagoon, and offshore of the Arkema site. See map.

Have other options, besides CDFs, been considered for addressing contaminated sediments? Were cost comparisons prepared to evaluate the CDFs against these other options?

The Portland Harbor draft Feasibility Study (FS) contains an analysis of a variety of options for addressing the wide range of contaminated sediments in the harbor. The options evaluated included in-situ, or in-place, treatment (e.g., use of materials such as activated carbon that can absorb contaminants in sediment), covering it with clean soil (capping), allowing cleaner sediments from upriver to cover it up (natural recovery), disposal in upland landfills, use of CDFs, and treatment of contaminated sediments prior to disposal in a CDF. Cost comparisons for these options were included in the Portland Harbor draft FS.

When will EPA make a decision about the use of CDFs in Portland Harbor? Will the public be able to provide input on CDFs?

EPA will provide a decision of how we plan to clean up contaminated sediments in Portland Harbor in a proposed plan, which should be available in late 2014. EPA will provide the public an opportunity to comment on the proposed plan before a final cleanup decision is made. If EPA proposes the use of CDFs in the proposed plan, then the public is invited to provide comments.



Will the CDFs affect aquatic habitat?

Yes. However, the loss of any habitat will need to be compensated for by improving habitat elsewhere in the river. This may result in providing higher quality habitat than what was lost (e.g., low-value habitat at Terminal 4 replaced with high quality habitat elsewhere).

Who will pay for construction of the CDFs?

Typically, funding comes from the owner or other parties who want to place sediments in the CDF. The proposed Terminal 4 CDF would be owned and operated by the Port of Portland.

Will the proposed CDFs accept all material dredged from Portland Harbor, including highly toxic material?

No. Acceptance criteria will be developed for each CDF that specifies the maximum contaminant concentration allowed in that CDF. EPA has already determined that sediment from highly contaminated areas like Gasco and Arkema may not be placed in CDFs without prior treatment such that the material meets the acceptance criteria.

Will the CDFs leak contaminants into the river?

Only sediment that meets the acceptance criteria will be allowed to be placed in the CDF. One of the purposes of the limit on the concentration of contaminants permitted within the CDF is to ensure that the CDF does not release contaminants to the Willamette River at unacceptable levels for humans or animals.

How will we know if the CDF is adequately holding the contaminants?

Short-term monitoring during construction and long-term monitoring after construction will be conducted to ensure the CDF is functioning. Groundwater will be monitored within the CDF and the berm (the berm separates the CDF from the river) to ensure contaminants are not leaching into the river at unacceptable concentrations. Routine inspections and inspections after floods, earthquakes, and other natural disasters of the CDF structure and berm will be conducted.

EPA is currently reviewing options for addressing Portland Harbor contaminated sediments outlined in the Feasibility Study. We anticipated having a draft proposed plan which will summarize the cleanup options and propose a preferred course of action available for public comment in 2014. Your input on the draft plan is one of the factors considered before we finalize a cleanup plan for Portland Harbor. Until then, we'll continue to meet with community members to answer questions and provide information that may help inform your input on the proposed plan.

For more information

EPA website

www.epa.gov/region10/portlandharbor/

More CDF questions:

http://www.epa.gov/region10/pdf/ph/t4/cdf_FAQs_2013.pdf

Sign up for updates and future meetings

notifications: bit.ly/ptIndhrbr

Community involvement questions:

Alanna Conley, 503-326-6831

CDF questions:

Sean Sheldrake, 206-553-1220

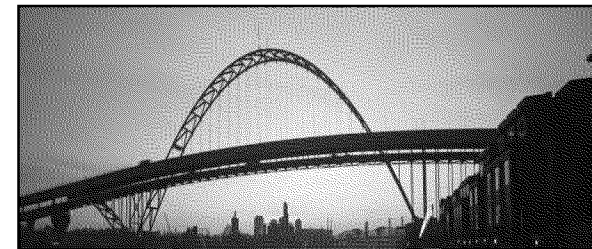
General Portland Harbor questions:

Chip Humphrey, 503-326-2678



**Portland Harbor Cleanup:
Community Questions on
Confined Disposal Facilities**

August 2013



EPA has received questions about confined disposal facilities (CDFs) from the community. Included are frequently asked community questions and answers. The purpose of this guide is to share a snapshot of what we've heard so far and to offer information shared during previous community meetings. See the contact information on the back of this brochure for other CDF questions and answers, general information about Portland Harbor and how to contact us.

What is a CDF?

A CDF is a n engineered structure that is fortified and built to completely contain dredged sediment. A CDF can be constructed in -water, nearshore, or in an upland area.

Has EPA approved the use of CDFs in Portland Harbor?

No. EPA is still evaluating the use of CDFs as a disposal option.